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June 18, 2015

GKN Aerospace Chem-tronics, Inc C/O Registered Agent CSC – Lawyers Incorporating Service 2710 Gateway Oaks Dr STE 150N Sacramento CA 95833

GKN Aerospace Chem-tronics, Inc 1150 West Bradley Avenue El Cajon CA 92020 VIA CERTIFIED MAIL -- RETURN RECEIPT REQUESTED

Re: Notice of Violation and Intent to File Clean Water Act Citizens' Suit [33 U.S.C. § 1365] 60-Day Notice

Dear Mr. Olms,

Please accept this letter on behalf of Coastal Environmental Rights Foundation ("CERF") regarding violations of the Federal Water Pollution Control Act (Clean Water Act) occurring at the GKN Aerospace Chem-tronics. Inc Facility located at 1150 W. Bradley Avenue, El Cajon, CA 92020 (WDID No. 9371000277). This letter constitutes CERF's notice of intent to sue for violations of the Clean Water Act and National Pollution Discharge Elimination System (NPDES) Permit No. CAS000001 (General Industrial Permit), as more fully set forth below.

Section 505(b) of the Clean Water Act requires that sixty (60) days prior to the initiation of a citizen's civil lawsuit in Federal District Court under section 505(a) of the Act, a citizen must give notice of the violations and the intent to sue to the violator and various agency officials. (33 U.S.C. § 1365(b)(1)(A)). In compliance with section 1365, this letter provides notice of the GKN Facility's violations and of CERF's intent to sue.

#### I. BACKGROUND

#### A. The GKN Facility

GKN Aerospace Chem-tronics, Inc ("GKN") owns and operates a facility located at the GKN located at 1150 W. Bradley Avenue, El Cajon, CA 92020 ("GKN Facility" or "Facility"). The GKN Facility has been in operation at this location since at least 1976. GKN conducts manufacturing of aerospace hardware, aircraft parts, systems, and structural engine components at the Facility. GKN leases the Facility from the County of San Diego.

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B. Storm Water Pollution from Industrial Facilities

Storm water pollution results from materials and chemicals washed into the storm drains from streets, gutters, neighborhoods, industrial sites, parking lots and construction sites. This type of pollution is significant because storm water is often untreated and flows directly to receiving waters, including lakes, rivers, or ultimately the ocean. Storm water runoff associated with industrial facilities in particular has the potential to negatively impact receiving waters and contributes to the impairment of downstream water bodies. Industrial areas are known to result in excessive wet-weather storm water discharges, as well as contaminated dry weather entries into the storm drain system.<sup>1</sup>

Pollutants associated with Sector AB (Transportation Equipment) include total suspended solids, oil and grease, spent solvents, metals, heavy metals, gas and diesel fuel and fuel additives, acid wastes, and other pollutants. (See Exhibit A, Industrial Stormwater Fact Sheet, Sector AB). The GKN SWPPP identifies the following potential pollutants present in Facility storm water: dirt and dust, tire and brake dust, metal fines, heavy metals, hydrocarbons, oil, grease, fuel, vehicle additives, machine coolants, and acid and caustic particulates. (SWPPP, 2012, p. 21).

#### C. Forester Creek, San Diego River, Pacific Ocean

Forester Creek is on the 303(d) list as impaired for numerous constituents, including fecal coliform, selenium, total dissolved solids, and pH. The San Diego River is also impaired for numerous constituents, including toxicity.

#### D. Discharges from the GKN Facility

Polluted discharges from the GKN Facility flow into Forester Creek, a tributary to the San Diego River, and ultimately to the Pacific Ocean. The Facility has been enrolled under the General Industrial Permit since 1992. According to the most recent Annual Report, the Facility has seven discharge locations to Forester Creek.

#### E. Citizen Group: Coastal Environmental Rights Foundation

CERF is a California nonprofit public benefit corporation founded by surfers dedicated to the protection, preservation and enhancement of the environment, wildlife, natural resources, local marine waters and other coastal natural resources. CERF's interests are and will be adversely affected by the GKN Facility Owners and/or Operators' actions. CERF's mailing address is 1140 S. Coast Highway 101, Encinitas, CA 92024. Its telephone number is (760) 942-8505.

Members of CERF use and enjoy the waters into which pollutants from the GKN Facility's ongoing illegal activities are discharged, including Forester Creek, the San Diego River and the Pacific Ocean. The public and members of CERF use these receiving waters to fish, sail, boat, kayak, surf, stand-up paddle, swim, scuba dive, birdwatch, view wildlife, and to

<sup>&</sup>lt;sup>1</sup> Illicit Discharge Detection and Elimination: Technical Appendices, Appendix K, Specific Considerations for Industrial Sources of Inappropriate Pollutant Entries to the Storm Drainage System (Adapted from Pitt, 2001)

engage in scientific studies. The discharge of pollutants by the GKN Facility affects and impairs each of these uses. Thus, the interests of CERF's members have been, are being, and will continue to be adversely affected by the GKN Facility Owners and/or Operators' failure to comply with the Clean Water Act and the General Industrial Permit.

#### II. CLEAN WATER ACT VIOLATIONS

The Clean Water Act (CWA) was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is effectively prohibited unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA added Section 402(p) that establishes a framework for regulating municipal and industrial storm water discharges under the NPDES Program. In 1990, US EPA published final regulations that require storm water associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers be regulated by an NPDES permit. Any person who discharges storm water associated with industrial activities must comply with the terms of the General Industrial Permit in order to lawfully discharge pollutants. (33 U.S.C. §§1311(a), 1342; 40 CFR §126(c)(1); General Industrial Permit Fact Sheet, p. vii ["All facility operators filing an NOI after the adoption of this General Permit must comply with this General Permit."]).

As enrollees under the General Industrial Permit, the GKN Facility Owners and/or Operators have failed and continue to fail to comply with the General Industrial Permit, as detailed below. Failure to comply with the General Industrial Permit is a Clean Water Act violation. (General Industrial Permit, §C.1).

## A. The GKN Facility Discharges Contaminated Storm Water in Violation of the General Industrial Permit

Discharge Prohibition A(2) of the General Industrial Permit prohibits storm water discharges and authorized non-storm water discharges which cause or threaten to cause pollution, contamination, or nuisance. Receiving Water Limitation C(1) of the Storm Water Permit prohibits storm water discharges to surface or groundwater that adversely impact human health or the environment. In addition, receiving Water Limitation C(2) prohibits storm water discharges and authorized non-storm water discharges, which cause or contribute to an exceedance of any water quality standards, such as the CTR or applicable Basin Plan water quality standards. "The California Toxics Rule ("CTR"), 40 C.F.R. 131.38, is an applicable water quality standard." (*Baykeeper v. Kramer Metals, Inc.* (C.D.Cal. 2009) 619 F.Supp.2d 914, 926). "In sum, the CTR is a water quality standard in the General Permit, Receiving Water Limitation C(2). A permittee violates Receiving Water Limitation C(2) when it 'causes or contributes to an exceedance of' such a standard, including the CTR." (*Id.* at 927).

If a discharger violates Water Quality Standards, the General Industrial Permit and the Clean Water Act require that the discharger implement more stringent controls necessary to meet such Water Quality Standards.(General Industrial Permit, Fact Sheet p. viii; 33 U.S.C. § 1311(b)(I)(C)). The GKN Facility Owners and/or Operators have failed to comply with this requirement, routinely violating Water Quality Standards without implementing BMPs to achieve BAT/BCT or revising the Facility's SWPPP pursuant to section (C)(3).

As demonstrated by sample data submitted by the GKN Facility Owners and/or Operators, from at least June 18, 2010 through the present, the Facility Owners and/or Operators have discharged and continue to discharge storm water containing pollutants at levels in violation of the above listed prohibitions and limitations during every significant rain event. (See Exhibit B, GKN Sampling Results Summaries [exceedances highlighted]). The GKN Facility's sampling data reflects 84 discharge violations.<sup>1</sup> (*Id.*). The Facility's own sampling data is not subject to impeachment. (*Baykeeper, supra*, 619 F.Supp. 2d at 927, citing *Sierra Club v. Union Oil Co. of Cal.*, (9th Cir. 1987) 813 F.2d 1480, 1492 ["when a permittee's reports indicate that the permittee has exceeded permit limitations, the permittee may not impeach its own reports by showing sampling error"]).

GKN has repeatedly exceeded the CTR for Copper and Zinc:

	TOTAL DISSOLVED N	IETALS		
(ug/L)	Freshwater			
Compound	Max Conc	Continuous Conc		
Copper	13	9		
Zinc	120	120		

This data further demonstrates the GKN Facility continuously discharges contaminated storm water during rain events which have not been sampled. (See Exhibit C, Rainfall data).

Every day the GKN Facility Owners and/or Operators discharged or continue to discharge polluted storm water in violation of the Discharge Prohibitions and Receiving Water Limitations of the General Industrial Permit is a separate and distinct violation of the Permit and Section 301(a) of the Clean Water Act, 33 U.S.C. §1311(a). The GKN Facility Owners and/or Operators are subject to civil penalties for all violations of the Clean Water Act occurring since June 18, 2010. These violations are ongoing and the GKN Facility Owners and/or Operators' violations will continue each day contaminated storm water is discharged in violation of the requirements of the General Industrial Permit. (See Exhibit C, Rainfall data). CERF will include additional violations when information becomes available.

B. Failure to Develop and/or Implement BMPs that Achieve Compliance with Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology

Effluent Limitation (B)(3) of the Storm Water Permit requires dischargers to reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized

<sup>&</sup>lt;sup>1</sup> The Regional Water Quality Control Board database is currently incomplete. It lacks the 2010-2011 monitoring data for the Facility. In light of historic and continued exceedances, it is likely similar exceedances occurred during this wet season as well. When CERF obtains the 2010-2011 monitoring data it will amend its notice to include such violations.

non-storm water discharges through implementation of the Best Available Technology Economically Achievable (BAT) for toxic pollutants<sup>3</sup> and Best Conventional Pollutant Control Technology (BCT) for conventional pollutants.<sup>4</sup>

EPA Benchmarks are the pollutant concentrations which indicate whether a facility has successfully developed or implemented BMPs that meet the BAT/BCT. GKN's primary SIC code is 3724 (Sector AB, Transportation Equipment). GKN also conducts metal fabrication (SIC codes 3479 and 3441). For fabricated metal products, Sector AA, the EPA has instituted the following benchmarks.<sup>5</sup>

Parameter	Benchmark (mg/L)	
Total Aluminum	.75	
Total Iron	1.0	
Total Zinc	.0426 (Hardness Dependent)	
	.13 at 100-124.99 mg/L Water Hardness Range	
Nitrate plus Nitrite Nitrogen	.68	

The State Water Resources Control Board has also set Benchmarks for pH, Total Suspended Solids, Specific Conductance, Oil & Grease, and Total Organic Carbon:

Parameter	Benchmark
pH (pH units)	6.0 - 9.0
TSS (mg/L)	100
Specific Conductance (umho/cm)	200
Oil & Grease (mg/L)	15
Total Organic Carbon	110

The San Diego Basin Plan water quality objective for pH is more stringent than the State benchmark. The inland surface waters pH water quality objective is a range between 6.5 and 8.5. (San Diego Basin Plan, p. 3-25).

Discharges with pollutant concentration levels above EPA Benchmarks, State Board Benchmarks and/or the CTR demonstrate that a facility has failed to develop and/or implement BMPs that achieve compliance with BAT for toxic pollutants and BCT for conventional pollutants. The Facility's annual reports demonstrate consistent exceedances of not only the CTR, but also EPA benchmarks, State Water Resources Control Board benchmarks, and Basin Plan objectives. (See Exhibit B).

Thus, the storm water discharge sampling data demonstrates that the GKN Facility Owners and/or Operators have not developed and/or implemented BMPs that meet the

<sup>&</sup>lt;sup>3</sup> Toxic pollutants are found at 40 CFR § 401.15 and include, but are not limited to: lead, nickel, zinc, silver, selenium, copper, and chromium.

<sup>&</sup>lt;sup>4</sup> Conventional pollutants are listed at 40 CFR § 401.16 and include biological oxygen demand, total suspended solids, pH, fecal coliform, and oil and grease.

<sup>&</sup>lt;sup>5</sup> 2015 Storm Water Multi-Sector General Permit for Industrial Activities, Sector AA, Table 8.AA-1

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standards of BAT/BCT. (See *Baykeeper, supra*, 619 F.Supp. 2d at 925 ["Repeated and/or significant exceedances of the Benchmark limitations should be relevant" to the determination of meeting BAT/BCT]).

Sources of pollutants at the GKN Facility include but are not limited to: parts and tool cleaning, metal surface cleaning, manufacture of metal components, process vent, cleanup of spills and drips, surface treatment, heavy equipment use and storage, equipment and vehicle maintenance, removal of applied chemicals, outdoor processing, and materials storage.

The GKN SWPPP identifies the following potential pollutants present in the Facility storm water: dirt and dust, tire and brake dust, metal fines, heavy metals, hydrocarbons, oil, grease, fuel, vehicle additives, machine coolants, and acid and caustic particulates. (SWPPP, 2012, p. 21).

Despite repeated violations of the aforementioned metrics, the Facility BMPs have not been updated to ensure protection of water quality. Thus, the Facility Owners and/or Operators are seriously in violation of Effluent Limitation (B)(3) of the Storm Water Permit. Every day the GKN Facility Owners and/or Operators operate with inadequately developed and/or implemented BMPs in violation of the BAT/BCT requirements in the General Industrial Permit is a separate and distinct violation of the Storm Water Permit and Section 301(a) of the Clean Water Act. (33 U.S.C. § 1311 (a)). The GKN Owners and/or Operators have been in daily and continuous violation of the BAT/BCT requirements of the General Industrial Permit every day since at least June 18, 2010, and are subject to penalties for all violations since at least this date. These violations are ongoing and the GKN Facility Owners and/or Operators will continue to be in violation every day they fail to develop and/or implement BMPs that achieve BAT/BCT to prevent or reduce pollutants associated with industrial activity in storm water discharges at the Facility. Thus, the GKN Facility Owners and/or Operators are liable for civil penalties for 1,825 violations of the General Industrial Permit and the Clean Water Act.

## C. Failure to Develop and/or Implement an Adequate Storm Water Pollution Prevention Plan

Section A(1) and Provision E(2) of the General Industrial Permit require dischargers to have developed and implemented a SWPPP by October 1, 1992 -- or prior to beginning industrial activities -- that meets all of the requirements of the Storm Water Permit. The objective behind the SWPPP requirements is to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges from the GKN Facility, and implement site-specific BMPs to reduce or prevent pollutants associated with industrial activities in storm water discharges. (General Industrial Permit, Section A(2)). To ensure its effectiveness, the SWPPP must be evaluated on an annual basis pursuant to the requirements of Section A(9), and must be revised as necessary to ensure compliance with the Permit. (General Industrial Permit, Section A(9), (10)).

Sampling data from storm water discharges at the Facility, which are attached as Exhibit B, indicate that the GKN Facility Owners and/or Operators have not developed or implemented an adequate SWPPP that meets the requirements of Section A of the General Industrial Permit.

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For over five years the GKN Facility has been exceeding water quality standards: the Basin Plan objectives, the CTR, and EPA benchmarks. Nonetheless, the SWPPP has not been updated with new BMPs. The SWPPP also requires the aforementioned evaluations be submitted with the Annual Reports, but, on information available to CERF, such evaluations have not been submitted with the Annual Reports.

Every day the GKN Facility Owners and/or Operators operate the Facility without an adequate SWPPP and/or with an inadequately developed and/or implemented SWPPP is a separate and distinct violation of the General Industrial Permit and Section 301(a) of the Clean Water Act. (33 U.S.C. § 1311(a)). The GKN Facility Owners and/or Operators have been in daily and continuous violation of the General Industrial Permit's SWPPP requirements every day since at least June 18, 2010. These violations are ongoing and the GKN Facility Owners and/or Operators will continue to be in violation every day they fail to revise, develop, and/or implement an adequate SWPPP for the GKN Facility.

The GKN Facility Owners and/or Operators are thus subject to penalties for all SWPPP-related violations of the General Industrial Permit and the Clean Water Act occurring since at least June 18, 2010. Thus, the GKN Facility Owners and/or Operators are liable for civil penalties for 1,825 violations of the General Industrial Permit and the Act.

#### E. Failure to Monitor

Sections B(5) and (7) of the General Industrial Permit require dischargers to visually observe and collect samples of storm water discharged from all locations where storm water is discharged. Facility operators, including the GKN Facility Owners and/or Operators, are required to collect samples from at least two qualifying storm events each wet season, including one set of samples during the first storm event of the wet season. Required samples must be collected by Facility operators from all discharge points and during the first hour of the storm water discharge from the Facility.

The GKN Facility Owners and/or Operators failed to sample at all during the 2012-2013 wet season, despite the fact that there was at least one qualifying rain event during this period. Indeed, GKN's neighbor, Veridiam, was able to collect samples on 12/13/2012 at 7:10 AM – during GKN business hours. In addition, GKN obtained only one sample during the 2013-2014 wet season, but Veridiam was able to obtain a sample on a day on which GKN did not sample (during business hours): 2/7/2014 at 1:15 PM. Further, precipitation data from Lindbergh Field indicates there were numerous qualifying rain events during these wet seasons. (See Exhibit C).

Lastly, for numerous constituents, including copper and chromium, the test method used to analyze constituents was not sensitive enough to capture potential violations. For example, the CTR for copper is .009 mg/L continuous and .013 mg/L instantaneous maximum. However, the sampling results indicate concentrations of < .05 mg/L. The samples could thus be lower than the detection limit but still exceed the CTR limit.

The GKN Facility Owners and/or Operators are thus subject to penalties for these monitoring violations in accordance with the General Industrial Permit – punishable by a minimum of \$37,500 per day of violation. (33 U.S.C. §1319(d); 40 CFR 19.4).

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#### III. REMEDIES

CERF's action will seek all remedies available under the Clean Water Act. (33 U.S.C. § 1365(a)(d)). "In suits under Section 505 of the Clean Water Act, citizens have access to the same remedies available to the EPA." (Student Public Interest Research Group, Inc. v. Georgia-Pacific Corp., 615 F. Supp. 1419, 1425 (D.N.J. 1985), citing Middlesex County Sewerage Auth. v. Nat'l Sea Clammers Ass'n, 453 U.S. 1, 13-14 (1981)). Pursuant to Section 309(d) of the Clean Water Act and the Adjustment of Civil Monetary Penalties for Inflation (40 C.F.R. § 19.4) each separate violation of the Clean Water Act subjects the violator to a penalty of up to \$37,500 per day for all violations occurring during the period commencing five years prior to the date upon which this notice is served.

In addition to civil penalties, CERF will seek injunctive relief preventing further violations of the Clean Water Act pursuant to sections 505(a) and (d), declaratory relief, and such other relief as permitted by law. Section 505(d) of the Clean Water Act permits prevailing parties to recover costs, including attorneys' and experts' fees. CERF will seek to recover all of their costs and fees pursuant to section 505(d).

CERF has retained legal counsel to represent them in this matter. All communications should be addressed to:

Marco A. Gonzalez COAST LAW GROUP LLP 1140 S. Coast Highway 101 Encinitas, CA 92024 Tel: (760) 942-8505 x 102

Fax: (760) 942-8515

Email: marco@coastlawgroup.com

Upon expiration of the 60-day notice period, CERF will file a citizen suit under Section 505(a) of the Clean Water Act for the above-referenced prior, continuing, and anticipated violations. During the 60-day notice period, however, CERF will entertain settlement discussions. If you wish to pursue such discussions in the absence of litigation, please contact Coast Law Group LLP immediately.

Sincerely,

COAST LAW GROUP LLI

Marco A. Gonzalez

Livia Borak Attorneys for

Coastal Environmental Rights Foundation

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## CC:

Jared Blumenfeld, Region 9 Administrator	Dave Gibson, Executive Officer
Alexis Strauss, Deputy Regional Administrator	Catherine Hagan, Staff Counsel
U.S. EPA, Region 9	San Diego Regional Water Quality Control Board
75 Hawthorne Street	2375 Northside Drive, Suite 100
San Francisco, CA, 94105	San Diego, CA 92108-2700
Gina McCarthy	Thomas Howard
EPA Administrator	Executive Director
Mail Code 4101M	State Water Resources Control Board
US EPA Ariel Rios Building (AR)	P.O. Box 100
1200 Pennsylvania Avenue N.W.	Sacramento, CA 95812-0110
Washington, DC 20004	

## **Index of Attachments**

Exhibit A. Industrial Stormwater Fact Sheet, Sector AB

Exhibit B. GKN Sampling Results Summaries with exceedances highlighted

Exhibit C. Rainfall Data

# INDUSTRIAL STORMWATER

## **FACT SHEET SERIES**



Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

# What is the NPDES stormwater permitting program for industrial activity?

Activities, such as material handling and storage, equipment maintenance and cleaning, industrial processing or other operations that occur at industrial facilities are often exposed to stormwater. The runoff from these areas may discharge pollutants directly into nearby waterbodies or indirectly via storm sewer systems, thereby degrading water quality.

In 1990, the U.S. Environmental Protection Agency (EPA) developed permitting regulations under the National Pollutant Discharge Elimination System (NPDES) to control stormwater discharges associated with eleven categories of industrial activity. As a result, NPDES permitting authorities, which may be either EPA or a state environmental agency, issue stormwater permits to control runoff from these industrial facilities.

# What types of industrial facilities are required to obtain permit coverage?

This fact sheet specifically discusses stormwater discharges from facilities that manufacture transportation equipment, industrial, or commercial machinery as described in SIC Major Groups 35 and 37 (except 357 and 373). This includes:

- ◆ Engines and turbines (SIC Code 351)
- ◆ Farm and garden machinery and equipment (SIC Code 352)
- Construction, mining, and materials handling machinery and equipment (SIC Code 353)
- ◆ Metalworking machinery and equipment (SIC Code 354)
- Special industry machinery, except metalworking machinery (SIC Code 355)
- ◆ General industrial machinery and equipment (SIC Code 356)
- ◆ Refrigeration and service industry machinery (SIC Code 358)
- Miscellaneous industrial and commercial machinery and equipment (SIC Code 359)
- ◆ Motor vehicles and motor vehicle equipment (SIC Code 371)
- ◆ Aircraft and parts (SIC Code 372)
- ◆ Motorcycles, bicycles, and parts (SIC Code 375)
- ◆ Guided missiles and space vehicles and parts (SIC Code 376)
- ◆ Miscellaneous transportation equipment (SIC Code 379)

## What does an industrial stormwater permit require?

Common requirements for coverage under an industrial stormwater permit include development of a written stormwater pollution prevention plan (SWPPP), implementation of control measures, and submittal of a request for permit coverage, usually referred to as the Notice of Intent or NOI.

#### · INDUSTRIAL STORMWATER FACT SHEET SERIES

## Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at your facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The industrial stormwater permit also requires collection of visual, analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. For more information on EPA's industrial stormwater permit and links to State stormwater permits, go to www.epa.gov/npdes/stormwater and click on "Industrial Activity."

## What pollutants are associated with my facilities activities?

Pollutants conveyed in stormwater discharges from facilities involved with the manufacturing of transportation equipment, industrial, or commercial machinery will vary. There are a number of factors that influence to what extent industrial activities and significant materials can affect water quality.

- ◆ Geographic location
- ◆ Topography
- ♦ Hydrogeology
- ◆ Extent of impervious surfaces (e.g., concrete or asphalt)
- ◆ Type of ground cover
- ◆ Outdoor activities (e.g., material storage, loading/unloading, vehicle maintenance)
- ◆ Size of the operation
- ◆ Type, duration, and intensity of precipitation events

The activities, pollutant sources, and pollutants detailed in Table 1 are commonly found at transportation equipment, industrial, or commercial machinery manufacturing facilities.

Table 1. Common Activities, Pollutants Sources, and Associated Pollutants at Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

Activity	Pollutant Source	Pollutant	
Outdoor material loading/unloading	Wooden pallets, castings, foundry sand, limestone, spills/leaks from material handling equipment, solvents	Total suspended solids (TSS), turbidity, dust, oil and grease, organics	
Outdoor material and equipment storage	Foundry sand, limestone, used equipment, above ground storage tanks, scrap metal, oil and grease, raw materials (e.g., aluminum, steel, iron, copper), castings, solvents, acids, and paints	TSS, turbidity, dust, oil and grease, heavy metals, organics	
	Stored hazardous waste, including: paint wastes, solvent wastes, and sludge wastes; stored nonhazardous wastes: glass, tires, used wooden pallets, used equipment and machinery, plastics and rubber wastes	TSS, oils, solvents	
Air emissions from stacks and ventilation systems	Engine exhaust from manufacturing equipment, paint residue, particulates in fumes from metal processing activities such as cutting, grinding, shaping, and welding	Particulates, heavy metals	
Vehicle fueling and maintenance	Parts cleaning	Solvents, oil, heavy metals, acid/alkaline wastes	
	Waste disposal of oily rags, oil and gas filters, batteries, coolants, degreasers	Oil, heavy metals, solvents, acids	
	Fluid replacement including hydraulic fluid, oil, transmission fluid, radiator fluids, and grease	Oil and grease, arsenic, lead, cadmium, chromium, COD, and benzene	
	Fueling	Diesel, gasoline, oil	

#### INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

# What BMPs can be used to minimize contact between stormwater and potential pollutants at my facility?

A variety of BMP options may be applicable to eliminate or minimize the presence of pollutants in stormwater discharges from transportation equipment, industrial, or commercial machinery manufacturing facilities. You will likely need to implement a combination or suite of BMPs to address stormwater runoff at your facility. Your first consideration should be for pollution prevention BMPs, which are designed to prevent or minimize pollutants from entering stormwater runoff and/or reduce the volume of stormwater requiring management. Prevention BMPs can include regular cleanup, collection and containment of debris in storage areas, and other housekeeping practices, spill control, and employee training. It may also be necessary to implement treatment BMPs, which are engineered structures intended to treat stormwater runoff and/or mitigate the effects of increased stormwater runoff peak rate, volume, and velocity. Treatment BMPs are generally more expensive to install and maintain and include oil-water separators, wet ponds, and proprietary filter devices.

BMPs must be selected and implemented to address the following:

## **Good Housekeeping Practices**

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and training employees in good housekeeping techniques. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices has proven to be an effective means of ensuring the continued implementation of these measures.

## **Minimizing Exposure**

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be a very effective pollution prevention measure.

#### **Erosion and Sediment Control**

BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities, soils, cover, materials, or other factors are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

## **Management of Runoff**

Your SWPPP must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others,

#### · INDUSTRIAL STORMWATER FACT SHEET SERIES

## Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures.

A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. Though not specifically outlined in this fact sheet, BMPs must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

All BMPs require regular maintenance to function as intended. Some management measures have simple maintenance requirements, others are quite involved. You must regularly inspect all BMPs to ensure they are operating properly, including during runoff events. As soon as a problem is found, action to resolve it should be initiated immediately.

Implement BMPs, such as those listed below in Table 2 for the control of pollutants at transportation equipment, and industrial and commercial machinery manufacturing facilities, to minimize and prevent the discharge of pollutants in stormwater. Identifying weaknesses in current facility practices will aid the permittee in determining appropriate BMPs that will achieve a reduction in pollutant loadings. BMPs listed in Table 2 are broadly applicable to transportation equipment, industrial, or commercial machinery manufacturing facilities; however, this is not a complete list and you are recommended to consult with regulatory agencies or a stormwater engineer/consultant to identify appropriate BMPs for your facility.

Table 2. BMPs for Potential Pollutant Sources at Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

Pollutant Source	BMPs			
Outdoor material loading and	<ul> <li>Confine loading/unloading activities to a designated area outside drainage pathways and away from surface waters</li> </ul>			
unloading	☐ Load/unload indoors or in a covered area.			
	Cover loading/unloading area with-permanent cover (e.g., roofs) or temporary cover (e.g., tarps).			
	Close storm drains during loading/unloading activities in surrounding areas. Avoid loading/unloading materials in the rain.			
	Slope the impervious concrete floor or pad to collect spills and leaks and convey them to prope containment and treatment.			
	☐ Provide overhangs or door skirts to enclose trailer ends at truck loading/unloading docks.			
	☐ For rail transfer, a drip pan shall be installed within the rails to collect spillage from the tank.			
	Where liquid or powdered materials are transferred in bulk to/from truck or rail cars, ensure hose connection points at storage containers are inside containment areas, or drip pans are used in areas where spillage may occur which are not in a containment area.			
	☐ Inspect all containers prior to loading/unloading of any raw or spent materials.			
	Provide diversion berms, dikes or grassed swales around the perimeter of the area to limit runon.			
	☐ Use dry cleanup methods instead of washing the areas down.			
	Regularly sweep area to minimize debris on the ground.			
	Provide dust control if necessary. When controlling dust, sweep and/or apply water or materials that will not impact surface or ground water.			
	☐ Develop and implement spill prevention, containment, and countermeasure (SPCC) plans			
	☐ Train employees on proper loading/unloading techniques and spill prevention and response.			

## INDUSTRIAL STORMWATER FACT SHEET SERIES

## Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

Table 2. BMPs for Potential Pollutant Sources at Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities (continued)

Pollutant Source	BMPs			
Outdoor material	☐ Cover storage areas with roofs or tarps.			
storage	Confine storage of raw materials, parts, and equipment to designated areas away from high traffic, outside drainage pathways and away from surface waters.			
	Provide secondary containment around chemical storage areas.			
	If containment structures have drains, ensure that the drains have valves, and that valves are maintained in the closed position. Institute protocols for checking/testing stormwater in containment areas prior to discharge.			
	Provide diversion berms, dikes or grassed swales around the perimeter of the area to limit run on.			
	☐ Direct stomrwater runoff to an on-site retention pond.			
	☐ Ensure that all containers are properly sealed and valves closed.			
	Conduct container integrity testing and provide leak detection.			
	Inspect storage tanks and piping systems (pipes, pumps, flanges, couplings, hoses, and valves) for failures or leaks and perform preventive maintenance.			
	☐ Plainly label all containers.			
	Maintain an inventory of fluids to identify leakage.			
	☐ Wash and rinse containers indoors before storing them outdoors.			
	☐ Train employees on proper spill prevention and response techniques.			
	☐ Train employees on proper waste control and disposal.			
Foundry sand and	☐ Confine storage to areas outside of drainage pathways and away from surface waters.			
limestone storage	☐ Divert stormwater around storage areas with vegetated swales, and/or berms.			
	Practice good housekeeping measures such as frequent removal of dust and debris. Cleanup methods may include mobile sweepers, scrapers, or scoops.			
	Use control measures such as berms, silt fences or waddles to control sediment from leaving storage area.			
	☐ Train employees in good housekeeping measures.			
Waste management	☐ Store waste in enclosed and/or covered areas.			
	☐ Store wastes in covered, leak proof containers (e.g., dumpsters, drums).			
	Cover the dumpsters or move them indoors.			
	☐ Use linked dumpsters that do not leak.			
	☐ Provide a lining for the dumpsters.			
	☐ Direct runoff to on-site retention pond.			
	Ensure hazardous and solid waste disposal practices are performed in accordance with applicable federal, state, and local requirements.			
	☐ Ship all wastes to offsite licensed landfills or treatment facilities.			
Particulate emission	☐ Clean around vents and stacks.			
management	☐ Place tubs around vents and stacks to collect particulates.			
	Inspect air emission control systems (e.g., baghouses) regularly and repair or replace when necessary.			

## · INDUSTRIAL STORMWATER FACT SHEET SERIES

## Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

Table 2. BMPs for Potential Pollutant Sources at Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities (continued)

Pollutant Source	BMPs			
Vehicle fueling	Conduct fueling operations (including the transfer of fuel from tank trucks) on an impervious or contained pad or under a roof or canopy where possible. Covering should cover extend beyond spill containment pad to prevent rain from entering.			
	☐ When fueling in uncovered area, use concrete pad (not asphalt).			
	☐ Use drip pans where leaks or spills of fuel can occur and where making and breaking hose connections.			
	☐ Use fueling hoses with check valves to prevent hose drainage after filling.			
	☐ Clean up spills and leaks immediately.			
	Minimize/eliminate run-on onto fueling areas with diversion dikes, berms, curbing, surface grading or other equivalent measures.			
	☐ Collect stormwater runoff and provide treatment or recycling.			
	Use dry cleanup methods for fuel area rather than hosing the fuel area down. Sweep up absorbents as soon as spilled substances have been absorbed.			
	Regularly inspect and perform preventive maintenance on storage tanks to detect potential leaks before they occur.			
	Inspect the fueling area for leaks and spills			
	Provide curbing or posts around fuel pumps to prevent collisions from vehicles.			
	Discourage "topping off" of fuel tanks.			
	☐ Train personnel on vehicle fueling BMPs			
Vehicle maintenance	Good Housekeeping			
	Plug floor drains that are connected to the storm or sanitary sewer; if necessary, install a sump that is pumped regularly.			
	Use drip plans, drain boards, and drying racks to direct drips back into a sink or fluid holding tank for reuse.			
	Drain all parts of fluids prior to disposal. Oil filters can be crushed and recycled.			
	Promptly transfer used fluids to the proper container; do not leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers.			
	Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers properly.			
	☐ Label and track the recycling of waste material (e.g., used oil, spent solvents, batteries).			
	☐ Maintain an organized inventory of materials.			
	Eliminate or reduce the number or amount of hazardous materials and waste by substituting nonhazardous or less hazardous materials.			
	☐ Clean up leaks, drips, and other spills without using large amounts of water.			
	Prohibit the practice of hosing down an area where the practice would result in the exposure of pollutants to stormwater.			
	☐ Clean without using liquid cleaners whenever possible.			
	Do all cleaning at a centralized station so the solvents stay in one area.			
	☐ If parts are dipped in liquid, remove them slowly to avoid spills.			
	Do not pour liquid waste down floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections.			

#### INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

Table 2. BMPs for Potential Pollutant Sources at Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities (continued)

Pollutant Source	MPs	
Vehicle maintenance	Minimizing Exposure	
(continued)	Perform all cleaning operations indoors or under covering when possible. Conduct the cleaning operations in an area with a concrete floor with no floor drainage other than to sanitary sewers or treatment facilities.	
	☐ If operations are uncovered, perform them on concrete pad that is impervious and contained.	
	Park vehicles and equipment indoors or under a roof whenever possible where proper control of oil leaks/spills is maintained and exposure to stormwater is prevented.	
	☐ Watch vehicles closely for leaks and use pans to collect fluid when leaks occur.	
	Management of Runoff	
	Use berms, curbs, or similar means to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area.	
	Collect the stormwater runoff from the cleaning area and providing treatment or recycling. Discharge vehicle wash or rinse water to the sanitary sewer (if allowed by sewer authority), wastewater treatment, a land application site, or recycled on-site. DO NOT discharge washwater to a storm drain or to surface water.	
	Inspections and Training	
	☐ Inspect the maintenance area regularly for proper implementation of control measures.	
	☐ Train employees on proper waste control and disposal procedures.	

# What if activities and materials at my facility are not exposed to precipitation?

The industrial stormwater program requires permit coverage for a number of specified types of industrial activities. However, when a facility is able to prevent the exposure of ALL relevant activities and materials to precipitation, it may be eligible to claim no exposure and qualify for a waiver from permit coverage.

If you are regulated under the industrial permitting program, you must either obtain permit coverage or submit a no exposure certification form, if available. Check with your permitting authority for additional information as not every permitting authority program provides no exposure exemptions.

## Where do I get more information?

For additional information on the industrial stormwater program see www.epa.gov/npdes/stormwater/msgp.

A list of names and telephone numbers for each EPA Region or state NPDES permitting authority can be found at www.epa.gov/npdes/stormwatercontacts.

## References

Information contained in this Fact Sheet was compiled from EPA's past and current Multi-Sector General Permits and from the following sources:

◆ U.S. Department of Defense, Department of the Navy. "Storm Water Best Management Practices (BMP) Decision Support Tool - Stormwater Pollution Prevention Options by Category: Vehicle Maintenance."

http://205.153.241.230/stormwaterbmp/cgi-bin/P2Cat.cfm?Cat=Vehicle%20Maintenance

#### · INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector AB: Transportation Equipment, Industrial, or Commercial Machinery Manufacturing Facilities

- ◆ U.S. Department of Defense, Department of the Navy. "Storm Water Best Management Practices (BMP) Decision Support Tool—Stormwater Pollution Prevention Options by Category: Fueling."
  - http://205.153.241.230/stormwaterbmp/cgi-bin/P2Cat.cfm?Cat=Vehicle%20Fueling
- U.S. EPA. September 1992. Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices. EPA 832-R-92-006.
   www.epa.gov/npdes/stormwater
- U.S. EPA, Office of Science and Technology. 1999. Preliminary Data Summary of Urban Stormwater Best Management Practices. EPA-821-R-99-012
   www.epa.gov/OST/stormwater/
- ◆ U.S. EPA, Office of Wastewater Management. NPDES Stormwater Multi-Sector General Permit for Industrial Activities (MSGP).

www.epa.gov/npdes/stormwater/msgp

## ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED

WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: A

DATE OF DISCHARGE:	11/4/2011	1/23/2012
TIME OF SAMPLE:	10:42 AM	12:55 PM
TIME DISCHARGE STARTED:	10:15 AM	12:00 PM
Elapse Time:	0:27:00	0:55:00

CONSTITUENT TESTED	TESTED	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
				<b>表面的地位的影響和</b>	S	CE WA	
pH	self	SM4500-H+B		5.5		5.5	0.5
Total Suspended Solids	lab	SMEWW 2540 D		68		23	20
Specific Conductance	lab	SMEWW 2510 B		201		382	1
Oil & Grease*	lab	EPA 1664	<	10	<	10.00	2,00
COD	lab	EPA 410.4		224		75	25
Fluoride	lab	SMEWW 4500 F C		5.6		13.4	0.1
Nitrates	lab	<b>SMEWW 4500 NO3 E</b>		3.20		3.35	0.50
Chromium	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Cobalt	lab	EPA 3010/6011	<	0.05	<	0.05	0.05
Copper	lab	EPA 3010/6010	<	0.13		0.08	0.05
Lead	lab	EPA 3010/6010		0.05	<	0.01	0.01
Nickel	lab	EPA 3010/6010		0.09		0.06	0.05
Zinc	lab	EPA 3010/6010		1		0.85	0.05
Arsenic	lab	EPA 7060	<	0.01	<	0.01	0.01
Mercury	lab	EPA 7470	<	0.0001	<	0.0001	0.0001
Volatile Organics	lab	EPA 8240	<	1	<	1	1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

#### ATTACHMENT C

State of California
STATE WATER RESOURCES CONTROL BOARD

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: B

DATE OF DISCHARGE:	11/4/2011	1/23/2012
TIME OF SAMPLE:	10:55 AM	1:01 PM
TIME DISCHARGE STARTED:	10:15 AM	12:00 PM
Elapse Time:	0:40:00	1:01:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
	N. Carlo		基础	Market Medicine			
pH	self	SM4500-H+B		5.0		5	0.5
Total Suspended Solids	lab	SMEWW 2540 D		23		6	20
Specific Conductance	lab	SMEWW 2510 B		204		103	1
Oil & Grease*	lab	EPA 1664	<	10	<	10.00	2,00
COD	lab	EPA 410.4		123		57	25
Fluoride	lab	SMEWW 4500 F C		4.9		2.88	0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		2.88		1.08	0.5
Chromium	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Cobalt	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Copper	lab	EPA 3010/6010		0.09	<	0.05	0.05
Lead	lab	EPA 3010/6010	<	0.01	<	0.01	0.01
Nickel	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Zinc	lab	EPA 3010/6010		0.96		0.48	0.05
Arsenic	lab	EPA 7060	<	0.01	<	0.01	0.01
Mercury	lab	EPA 7470	<	0.0001	<	0.0001	0.0001
Volatile Organics	lab	EPA 8240	<	1	<	1	1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Eatimated		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

## ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: C

DATE OF DISCHARGE:	11/4/2011	1/23/2012
TIME OF SAMPLE:	11:01 AM	1:07 PM
TIME DISCHARGE STARTED:	10:15 AM	12:00 PM
Elapse Time:	0:46:00	1:07:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
	4 3 4	Arte Latin		$x_i = \frac{1}{2} \frac{1}{2} \frac{1}{2}$		A Land	130 500
pH	self	PAPER		5		5	0.5
Total Suspended Solids	lab	SMEWW 2540 D	<	24		7	20
Specific Conductance	lab	SMEWW 2510 B		223		97.7	. 1
Oil & Grease*	lab	EPA 1664	<	10	<	10	2
COD	lab	EPA 410.4		124		43	25
Fluoride	lab	SMEWW 4500 F C		7.17		5.1	0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		6.97		1.21	0.5
Chromium	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Cobalt	lab	EPA 3010/6010		0.09	<	0.05	0.05
Copper	lab	EPA 3010/6010		0.2	<	0.05	0.05
Lead	lab	EPA 3010/6010 .	<	0.01	<	0.01	0.01
Nickel	lab	EPA 3010/6010		0.1	<	0.05	0.05
Zinc	lab	EPA 3010/6010		2.14		0.54	0.05
Arsenic	lab	EPA 7060	<	0.01	<	0.01	0.01
Mercury	lab	EPA 7470	<	0.0001	<	0.0001	0.0001
Volatile Organics	lab	EPA 8240	<	1	<	1	1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimate		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: D

DATE OF DISCHARGE:	11/4/2011	1/23/2012
TIME OF SAMPLE:	11:11 AM	1:17 PM
TIME DISCHARGE STARTED:	10:15 AM	12:00 PM
Elapse Time:	0:56:00	1:17:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED		RESULTS (mg/L)		RESULTS (mg/L)	DETECTION LIMIT
to have the			100	X 1964			
pH	self	PAPER		5		5.5	0.5
Total Suspended Solids	lab	SMEWW 2540 D	<	32		5	20
Specific Conductance	lab	SMEWW 2510 B		131		55.4	
Oil & Grease*	lab	EPA 1664	<	10	<	10	2
COD	lab	EPA 410.4		136		40	15
Fluoride	lab	SMEWW 4500 F C		1.35		0.83	0.1
Nitrate	lab	SMEWW 4500 NO3 E		3.04		0.44	0.5
Chromium (Total)	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Cobalt	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Copper	lab	EPA 3010/6010		0.06	<	0.05	0.05
Lead	lab	EPA 3010/6010	<	0.01	<	0.01	0.01
Nickel	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Zinc	lab	EPA 3010/6010		1.50		0.34	0.05
Arsenic	lab	EPA 7060	<	0.01	<	0.01	0.01
Mercury	lab	EPA 7470	<	0.0001	<	0.0001	0.0001
Volatile Organics	lab	EPA 8240	<	1	<	86.1	2 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			CARREL WARRY OF WARRY

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED

WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: E

DATE OF DISCHARGE:	11/4/2011	1/23/2012
TIME OF SAMPLE:	11:22 AM	1:23 PM
TIME DISCHARGE STARTED:	10:15 AM	12:00 PM
Elapse Time:	1:07:00	1:23:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION
Commence of the Commence of th	SECTION AND ADDRESS.	14.25.57	174		A PARTIE		Water by
pH	self	PAPER		5.0		5.5	0.5
Total Suspended Solids	lab	SMEWW 2540 D	<	28		11	20
Specific Conductance	lab	SMEWW 2510 B		201		164	1
Oil & Grease*	lab	EPA 413.2	<	10	<	10	2
COD	lab	EPA 410.4		146		56	25
Fluoride	lab	SMEWW 4500 F C		1.75		1.32	0.1
Nitrate	lab	SMEWW 4500 NO3 E		2.82		0.46	0.5
Chromium	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Cobalt	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Copper	lab	EPA 3010/6010		0.07	<	0.05	0.05
Lead	lab	EPA 3010/6010	<	0.01	<	0.01	0.01
Nickel	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Zinc	lab	EPA 3010/6010		0.72		0.19	0.05
Arsenic	lab	EPA 7060	<	0.01	<	0.01	0.01
Mercury	lab	EPA 7470	<	0.0001	<	0.0001	0.0001
Volatile Organics	lab	EPA 8240	<	1	<	41.8	1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			
	A CALL AND STATE OF THE STATE O	The second second		第100mm(110mm)	3000	AND CONTRACTOR OF THE PARTY OF	A STATE OF THE STA

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: F

DATE OF DISCHARGE:	11/4/2011	1/23/2012
TIME OF SAMPLE:	11:27 AM	1:30 PM
TIME DISCHARGE STARTED:	10:15 AM	12:00 PM
Elapse Time:	1:12:00	1:30:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
14-14-40 -44 VI. VIII 18	A	1. 1. 1. 1. 1.	F. 18		湖鄉	The state of the s	1
pH	self	PAPER		5.0		5	0.5
Total Suspended Solids	lab	SMEWW 2540 D	<	29		12	20
Specific Conductance	lab	SMEWW 2510 B		173		116	1
Oil & Grease*	lab	EPA 1664	<	10	<	10	2.00
COD	lab	EPA 410.4		135		68	25
Fluoride	lab	SMEWW 4500 F C		0.74		0.80	0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		2.14		0.64	0.5
Chromium	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Cobalt	lab	EPA 3010/6010	<	0.05	<	0.05	_0.05
Copper	lab	EPA 3010/6010		0.05	<	0.05	0.05
Lead	lab	EPA 3010/6010	<	0.01	<	0.01	0.01
Nickel	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Zinc	lab	EPA 3010/6010		0.31		0.16	0.05
Arsenic	lab	EPA 7060	<	0.01	<	0.01	0.01
Mercury	lab	EPA 7470	<	0.0001	<	0.0001	0.0001
Volatile Organics	lab	EPA 8240	<	1	<	2	1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			
Size of Storm	self	Estimated	A. S. Car		200		

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED

WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: G

DATE OF DISCHARGE:	11/4/2011	1/23/2012
TIME OF SAMPLE:	11:35 AM	1:30 PM
TIME DISCHARGE STARTED:	10:15 AM	12:00 PM
Elapse Time:	1:20:00	1:30:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
A BANK SAME SAME SAME SAME	300 42				<b>3333</b>	( ) that it	
рН	self	PAPER		5		5	0.5
Total Suspended Solids	lab	SMEWW 2540 D	<	110		19	20
Specific Conductance	lab	SMEWW 2510 B		181		192	1
Oil & Grease*	lab	EPA 1664	<	10	<	10	2.00
COD	lab	EPA 410.4		312		115	. 25
Fluoride	lab	SMEWW 4500 F C		1.06		1.19	0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		2.20		0.70	0.5
Chromium	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Cobalt	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Copper	lab	EPA 3010/6010		0.06	<	0.05	0.05
Lead	lab	EPA 3010/6010		0.01	<	0.01	0.01
Nickel	lab	EPA 3010/6010	<	0.05	<	0.05	0.05
Zinc	lab	EPA 3010/6010		0.36		0.15	0.05
Arsenic	lab	EPA 7060	<	0.01	<	0.01	0.01
Mercury	lab	EPA 7470	<	0,0001	<	0.0001	0.0001
Volatile Organics	lab	EPA 8240	<	1	<	2	1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413,2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: A

DATE OF DISCHARGE:	12/19/2013	
TIME OF SAMPLE:	3:51 PM	
TIME DISCHARGE STARTED:	3:15 PM	
Elapse Time:	0:36:00	

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
lle: il f il fill!				4.7			
pH	self	SM4500-H+B		5.0			0.5
Total Suspended Solids	lab	SMEWW 2540 D		73			20
Specific Conductance	lab	SMEWW 2510 B		189			1
Oil & Grease*	lab	EPA 1664	<	5			5.00
COD	lab	EPA 410.4		101			25
Fluoride	lab	SMEWW 4500 F C		2.4			0.1
Nitrates	lab	<b>SMEWW 4500 NO3 E</b>		2.42			0.50
Chromium	lab	EPA 3010/6010	<	0.05	65		0.05
Cobalt	lab	EPA 3010/6011	<	0.05			0.05
Copper	lab	EPA 3010/6010		0.05			0.05
Lead	lab	EPA 3010/6010		0.01			0.01
Nickel	lab	EPA 3010/6010		0.08			0.05
Zinc	lab	EPA 3010/6010 ·		0.35			0.05
Arsenic	lab	EPA 7060	<	0.01			0.01
Mercury	lab	EPA 7470	<	0.0001			0.0001
Volatile Organics	lab	EPA 8240	<	1			1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

#### ATTACHMENT C

State of California
STATE WATER RESOURCES CONTROL BOARD

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

#### SAMPLING RESULTS SUMMARY

DISCHARGE POINT: B

DATE OF DISCHARGE:	12/19/2013	
TIME OF SAMPLE:	3:56 PM	
TIME DISCHARGE STARTED:	3:15 PM	
Elapse Time:	0:41:00	0:00:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
1000 19 15 10 10 10 10 10		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
pH	self	SM4500-H+B		5.0	,		0.5
Total Suspended Solids	lab	SMEWW 2540 D		76			20
Specific Conductance	lab	SMEWW 2510 B		91.5			
Oil & Grease*	lab	EPA 1664	<	5			2.00
COD	lab	EPA 410.4		106			25
Fluoride	lab	SMEWW 4500 F C		2.3			0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		1.51			0.5
Chromium	lab	EPA 3010/6010	<	0.05			0.05
Cobalt	lab	EPA 3010/6010	<	0.05			0.05
Copper	lab	EPA 3010/6010		0.08			0.05
Lead	lab	EPA 3010/6010		0.01			0.01
Nickel	lab	EPA 3010/6010	<	0.05			0.05
Zinc	lab	EPA 3010/6010		0.6			• 0.05
Arsenic	lab	EPA 7060	<	0.01			0.01
Mercury	lab	EPA 7470	<	0.0001			0.000
Volatile Organics	lab	EPA 8240	<	1			1 - 100 ppl
Flow				Not measured			
Size of Storm	self	Eatimated		moderate			

Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

SAMPLING RESULTS SUMMARY

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

DISCHARGE POINT: C

DATE OF DISCHARGE:	12/19/2013	
TIME OF SAMPLE:	4:01 PM	
TIME DISCHARGE STARTED:	3:15 PM	
Elapse Time:	0:46:00	0:00:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND		ND	RESULTS (mg/L)	DETECTION LIMIT
				r Jainus !	13.57	(Astlete	
pH	self	PAPER		5			0.5
Total Suspended Solids	lab	SMEWW 2540 D		115			20
Specific Conductance	lab	SMEWW 2510 B		111			
Oil & Grease*	lab	EPA 1664	<	5			5
COD	lab	EPA 410.4		134			25
Fluoride	lab	SMEWW 4500 F C		2.17			0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		1.48			0.5
Chromium	lab	EPA 3010/6010	<	0.05			0.05
Cobalt	lab	EPA 3010/6010		0.05			0.05
Copper	lab	EPA 3010/6010		0.1			0.05
Lead	lab	EPA 3010/6010		0.01			0.01
Nickel	lab	EPA 3010/6010	<	0.05			0.05
Zinc	lab ·	EPA 3010/6010		0.75			0.05
Arsenic	lab	EPA 7060	<	0.01			0.01
Mercury	lab	EPA 7470	<	0.0001			0.0001
Volatile Organics	lab	EPA 8240	<	1			I - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimate		moderate			catalista (c. 1884)

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: D

DATE OF DISCHARGE:	12/19/2013	
TIME OF SAMPLE:	4:03 PM	
TIME DISCHARGE STARTED:	3:15 PM	
Elapse Time:	0:48:00	0:00:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED		RESULTS (mg/L)	RESULTS (mg/L)	DETECTION LIMIT
						Married R. S.
pH	self	PAPER		5		0.5
Total Suspended Solids	lab	SMEWW 2540 D		24		20
Specific Conductance	lab	SMEWW 2510 B		113		
Oil & Grease*	lab	EPA 1664	<	5	2	
COD	lab	EPA 410.4		68		1:
Fluoride	lab	SMEWW 4500 F C		0.71		0.1
Nitrate	lab	SMEWW 4500 NO3 E		0.57		0.5
Chromium (Total)	lab	EPA 3010/6010	<	0.05		0.03
Cobalt	lab	EPA 3010/6010	<	0.05		0.03
Copper	lab	EPA 3010/6010	<	0.05		0.03
Lead	lab	EPA 3010/6010	<	0.01		0.0
Nickel	lab	EPA 3010/6010	<	0.05		0.05
Zinc	lab	EPA 3010/6010		0.37		0.05
Arsenic	lab	EPA 7060	<	0.01		0.01
Mercury	lab	EPA 7470	<	0.0001		0.0001
Volatile Organics	lab	EPA 8240	<	1		2 - 100 ppt
Flow			1	Not measured		
Size of Storm	self	Estimated		moderate		

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: E

DATE OF DISCHARGE:	12/19/2013	
TIME OF SAMPLE:	4:10 PM	
TIME DISCHARGE STARTED:	3:15 PM	
Elapse Time:	0:55:00	0:00:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND		ND	RESULTS (mg/L)	DETECTION LIMIT
				i i i i i i i i i i i i i i i i i i i			
рН	self	PAPER	2	5.0			0.5
Total Suspended Solids	lab	SMEWW 2540 D		55			20
Specific Conductance	lab	SMEWW 2510 B		89			1
Oil & Grease*	lab	EPA 413.2	<	5			5
COD	lab	EPA 410.4		88			25
Fluoride	lab	SMEWW 4500 F C		0.695			0.1
Nitrate	lab	SMEWW 4500 NO3 E		0.65			0.5
Chromium	lab	EPA 3010/6010	<	0.05			0.05
Cobalt	lab	EPA 3010/6010	<	0.05			0.05
Copper	lab	EPA 3010/6010	<	0.05			0.05
Lead	lab	EPA 3010/6010	<	0.01			0.01
Nickel	lab	EPA 3010/6010	<	0.05			0.05
Zinc ·	lab	EPA 3010/6010		- 0.37			0.05
Arsenic	lab	EPA 7060	<	0.01			0.01
Mercury	lab	EPA 7470	<	0.0001			0.0001
Volatile Organics	lab	EPA 8240		28			1 - 100 ppb
Flow	•			Not measured			
Size of Storm	self	Estimated		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: F

DATE OF DISCHARGE:	12/19/2013	
TIME OF SAMPLE:	4:13 PM	
TIME DISCHARGE STARTED:	3:15 PM	
Elapse Time:	0:58:00	0:00:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
	1						
рН	self	PAPER		5.0			0.5
Total Suspended Solids	lab	SMEWW 2540 D		34			20
Specific Conductance	lab	SMEWW 2510 B		141			
Oil & Grease*	lab	EPA 1664	<	5			5.00
COD	lab	EPA 410.4		74			25
Fluoride	lab	SMEWW 4500 F C		0.41			0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		0.67			0.5
Chromium	lab	EPA 3010/6010	<	0.05			0.05
Cobalt	lab	EPA 3010/6010	<	0.05			0.05
Copper	lab	EPA 3010/6010	<	0.05			0.05
Lead	lab	EPA 3010/6010	<	0.01			0.01
Nickel	lab	EPA 3010/6010	<	0.05			0.05
Zinc	lab	EPA 3010/6010		0.23			0.05
Arsenic	lab	EPA 7060	<	0.01			0.01
Mercury	lab	EPA 7470	<	0.0001			0.0001
Volatile Organics	lab	EPA 8240		25.8			1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

ANNUAL REPORT

for STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

## SAMPLING RESULTS SUMMARY

DISCHARGE POINT: G

DATE OF DISCHARGE:	12/19/2013	
TIME OF SAMPLE:	11:35 AM	
TIME DISCHARGE STARTED:	3:15 PM	
Elapse Time:	-3:40:00	0:00:00

CONSTITUENT TESTED	TESTED BY	TEST METHOD USED	ND	RESULTS (mg/L)	ND	RESULTS (mg/L)	DETECTION LIMIT
							A 1171
pH	self	PAPER		5			0.5
Total Suspended Solids	lab	SMEWW 2540 D		23			20
Specific Conductance	lab	SMEWW 2510 B		84.5			
Oil & Grease*	lab	EPA 1664	<	5			5.00
COD	lab	EPA 410.4		101			25
Fluoride	lab	SMEWW 4500 F C		1.86			0.1
Nitrate	lab	<b>SMEWW 4500 NO3 E</b>		0.52			0.5
Chromium	lab	EPA 3010/6010	<	0.05			0.05
Cobalt	lab	EPA 3010/6010	<	0.05			0.05
Copper	lab	EPA 3010/6010	<	0.05			0.05
Lead	lab	EPA 3010/6010	<	0.01			0.01
Nickel	lab	EPA 3010/6010	<	0.05			0.05
Zinc	lab	EPA 3010/6010		0.24			0.05
Arsenic	lab	EPA 7060	<	0.01			0.01
Mercury	lab	EPA 7470	<	0.0001			0.0001
Volatile Organics	lab	EPA 8240	<	1			1 - 100 ppb
Flow				Not measured			
Size of Storm	self	Estimated		moderate			

<sup>\*</sup> Oil & Grease tested in accordance with EPA Method 413.2 has been discontinued by our lab because the lab method requires Chlorinated solvents for processing, instead Method 1664 is substituted.

## Qualifying Rainfall Events (.1 inches of rain or more) During Business Hours

## **NOAA National Climactic Data Center**

Stations: COOP:047740 - SAN DIEGO LINDBERGH FIELD, CA US

Data Types: HPCP - Precipitation (100th of an inch)

2009

Month	<u>Inches</u>	<u>Time:</u>
6-Feb	0.61	
7-Feb	0.74	
8-Feb	0.2	
9-Feb	0.21	8:00 AM
10-Feb	0.34	
14-Feb	0.13	
16-Feb	0.62	12:00 PM
22-Mar	0.22	11:00 AM
31-May	0.13	
4-Jun	0.13	
29-Nov	0.35	
7-Dec	0.13	9:00 AM
8-Dec	1.99	
12-Dec	0.13	
13-Dec	0.88	
TOTAL	6.81	

2010

<u>Month</u>	<u>Inches</u>	<u>Time:</u>
18-Jan	0.1	4:00 PM
19-Jan	1.4	1:00 PM
20-Jan	7.4	
21-Jan	1.65	12:00 PM
22-Jan	1.41	
23-Jan	0.29	
27-Jan	0.14	
6-Feb	0.17	11:00 AM
7-Feb	0.27	
10-Feb	0.47	
20-Feb	0.49	
22-Feb	0.12	
27-Feb	0.2	
28-Feb	1.27	
7-Mar	0.38	10:00 AM
8-Mar	0.3	
1-Apr	0.49	
6-Apr	0.15	***
12-Apr	0.65	4:30 PM
22-Apr	0.47	
6-Oct	0.43	
20-Oct	0.9	12:00 PM
21-Oct	0.12	
30-Oct	0.38	8:00 AM
20-Nov	0.69	2:00 PM
21-Nov	0.12	11:00 AM
24-Nov	0.87	
20-Dec	0.83	
21-Dec	3.46	8:00 AM
22-Dec	0.48	8:00 AM
26-Dec	0.69	-
30-Dec	1.8	9:00 AM
TOTAL	28.59	

## Qualifying Rainfall Events (.1 inches of rain or more) During Business Hours

## **NOAA National Climactic Data Center**

Stations: COOP:047740 - SAN DIEGO LINDBERGH FIFI.D, CA US

Data Types: HPCP - Precipitation (100th of an inch)

2011

<u>Month</u>	<u>Inches</u>	Time:
3-Jan	0.85	
4-Jan	0.1	
18-Feb	0.24	5:00 AM
20-Feb	0.2	
26-Feb	0.8	
27-Feb	0.22	
7-Mar	0.2	
21-Mar	0.89	
22-Mar	0.14	
24-Mar	0.25	
26-Mar	0.15	
9-Apr	0.14	
18-May	0.73	
29-May	0.1	
4-Nov	0.34	4:00 PM
12-Nov	1.04	1:00 PM
12-Dec	0.96	9:00 AM
TOTAL	7.35	

2012

Month	<u>Inches</u>	Time:
23-Jan	0.2	2:00 PM
24-Jan	0.28	
7-Feb	0.23	4:00 PM
14-Feb	0.34	
16-Feb	0.2	
28-Feb	0.72	
17-Mar	0.24	1:00 PM
18-Mar	0.47	
25-Mar	0.43	5:00 PM
1-Apr	0.11	
11-Apr	0.45	
13-Apr	0.33	4:00 PM
26-Apr	0.61	
12-Oct	0.77	
8-Nov	0.14	
1-Dec	0.23	
13-Dec	1.6	8:00 AM
14-Dec	0.28	
15-Dec	0.37	
19-Dec	0.47	
25-Dec	0.37	
30-Dec	0.28	
TOTAL	9.12	

## Qualifying Rainfall Events (.1 inches of rain or more) During Business Hours

## **NOAA National Climactic Data Center**

Stations: COOP:047740 - SAN DIEGO LINDBERGH FIELD, CA US

Data Types: HPCP - Precipitation (100th of an inch)

## 2013

<u>Month</u>	<u>Inches</u>
7-Jan	0.26
25-Jan	0.23
26-Jan	0.73
27-Jan	0.1
9-Feb	0.15
20-Feb	0.3
9-Mar	0.2
21-Nov	0.28
22-Nov	0.2
8-Dec	0.17
20-Dec	0.1
TOTAL	2.72

## 2014

Month	Inches
3-Feb	0.25
7-Feb	0.37
27-Feb	0.1
28-Feb	0.46
1-Mar	0.76
2-Mar	0.6
2-Apr	0.22
26-Apr	0.13
TOTAL	2.89